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<110> Beetham, P.
Avissar, P.
Walker, K.
Metz, R.

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agaattacta	gtatgggcca	gtgtaaggag	tactattact	ctttgcttat	tttattgatt	1860
gagttttgtc	aaggatctgg	ctttgtcaag	aattactggg	taattttatt	gacaatctca	1920
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<210> 25

<211> 1335

<212> DNA

<213> Zea mays

<400> 25

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acagtggttg	ataacctgct	gaacagttag	gatgtccact	acatgctcgg	ggccttgagg	180
actcttgggc	tctctgtcga	agcggacaaa	gctgcacaaa	gagctgtagt	tgttggttgt	240
ggttgaaaagt	tccaggttga	ggatgctaaa	gaggaaagtgc	agctcttctt	ggggaatgct	300
ggaaactgcaa	tgcggccatt	gacagcagct	gttactgtct	ctagtgaaaa	tacaacttac	360

attgataaat	taatttccat	tcggtacgtc	gaaatgacat	tgagattgat	ggagcgtttt	660
ggtgtgaaa	gagagattc	tgatagctgg	gacagattct	acattaaggg	aggtcaaaaa	720
tacaagtccc	ctaaaaatgc	ctatgttgaa	ggtgatgcct	caagcgcaag	ctatttcttg	780
gctggtgctg	caattactgg	agggactgtg	actgtggaag	gttgtggcac	caccagtttg	840
caggggtgatg	tgaagtttgc	tgaggtactg	gagatgatgg	gagcgaaggt	tacatggacc	900
gagactagcg	taactgttac	tggcccaccg	cgggagccat	ttgggaggaa	acacctcaag	960
gcgattgatg	tcaacatgaa	caagatgcct	gatgtcgcca	tgactcttgc	tgtggttgc	1020
ctctttgcgg	atggcccgcg	agccatcaga	gacgtggctt	cctggagagt	aaaggagacc	1080
gagaggatgg	ttgcgatccg	gacggagcta	accaagctgg	gagcatctgt	tgaggaaggg	1140
cggactact	gcacatccac	gcgcgcggag	aagctgaacg	tgacggcgat	cgacacgtac	1200
gacgaccaca	ggatggccat	ggccttctcc	cttgccgcct	gtgcgcaggt	ccccgtcacc	1260
atccgggacc	ctgggtgcac	cgggaagacc	ttccccgact	acttogatgt	gctgagcact	1320
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<210> 26

<211> 516

<212> PRT

<213> Brassica napus

<400> 26

Met	Ala	Gln	Ser	Ser	Arg	Ile	Cys	His	Gly	Val	Gln	Asn	Pro	Cys	Val
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Ile	Ile	Ser	Asn	Leu	Ser	Lys	Ser	Asn	Gln	Asn	Lys	Ser	Pro	Phe	Ser
			20					25					30		
Val	Ser	Leu	Lys	Thr	His	Gln	Pro	Arg	Ala	Ser	Ser	Trp	Gly	Leu	Lys
			35				40					45			
Lys	Ser	Gly	Thr	Met	Leu	Asn	Gly	Ser	Val	Ile	Arg	Pro	Val	Lys	Val
			50			55				60					
Thr	Ala	Ser	Val	Ser	Thr	Ser	Glu	Lys	Ala	Ser	Glu	Ile	Val	Leu	Gln
65					70					75				80	
Pro	Ile	Arg	Glu	Ile	Ser	Gly	Leu	Ile	Lys	Leu	Pro	Gly	Ser	Lys	Ser
			85					90					95		
Leu	Ser	Asn	Arg	Ile	Leu	Leu	Leu	Ala	Ala	Leu	Ser	Glu	Gly	Thr	Thr
			100					105					110		
Val	Val	Asp	Asn	Leu	Leu	Asn	Ser	Asp	Asp	Ile	Asn	Tyr	Met	Leu	Asp
			115				120				125				
Ala	Leu	Lys	Lys	Leu	Gly	Leu	Asn	Val	Glu	Arg	Asp	Ser	Val	Asn	Asn
			130			135					140				
Arg	Ala	Val	Val	Glu	Gly	Cys	Gly	Gly	Ile	Phe	Pro	Ala	Ser	Leu	Asp
145				150						155				160	
Ser	Lys	Ser	Asp	Ile	Glu	Leu	Tyr	Leu	Gly	Asn	Ala	Gly	Thr	Ala	Met
			165					170					175		
Arg	Pro	Leu	Thr	Ala	Ala	Val	Thr	Ala	Ala	Gly	Gly	Asn	Ala	Ser	Tyr
			180				185					190			
Val	Leu	Asp	Gly	Val	Pro	Arg	Met	Arg	Glu	Arg	Pro	Ile	Gly	Asp	Leu
		195				200					205				
Val	Val	Gly	Leu	Lys	Gln	Leu	Gly	Ala	Asp	Val	Glu	Cys	Thr	Leu	Gly
		210			215						220				
Thr	Asn	Cys	Pro	Pro	Val	Arg	Val	Asn	Ala	Asn	Gly	Gly	Leu	Pro	Gly
225				230				235					240		
Gly	Lys	Val	Lys	Leu	Ser	Gly	Ser	Ile	Ser	Ser	Gln	Tyr	Leu	Thr	Ala
			245					250					255		
Leu	Leu	Met	Ala	Ala	Pro	Leu	Ala	Leu	Gly	Asp	Val	Glu	Ile	Glu	Ile
			260				265					270			

Phe Phe Val Lys Gly Gly Gln Lys Tyr Lys Ser Pro Gly Asn Ala Tyr
 305 310 315 320
 Val Glu Gly Asp Ala Ser Ser Ala Ser Tyr Phe Leu Ala Gly Ala Ala
 325 330 335
 Ile Thr Gly Glu Thr Val Thr Val Glu Gly Cys Gly Thr Thr Ser Leu
 340 345 350
 Gln Gly Asp Val Lys Phe Ala Glu Val Leu Glu Lys Met Gly Cys Lys
 355 360 365
 Val Ser Trp Thr Glu Asn Ser Val Thr Val Thr Gly Pro Ser Arg Asp
 370 375 380
 Ala Phe Gly Met Arg His Leu Arg Ala Val Asp Val Asn Met Asn Lys
 385 390 395 400
 Met Pro Asp Val Ala Met Thr Leu Ala Val Val Ala Leu Phe Ala Asp
 405 410 415
 Gly Pro Thr Thr Ile Arg Asp Val Ala Ser Trp Arg Val Lys Glu Thr
 420 425 430
 Glu Arg Met Ile Ala Ile Cys Thr Glu Leu Arg Lys Leu Gly Ala Thr
 435 440 445
 Val Glu Glu Gly Ser Asp Tyr Cys Val Ile Thr Pro Pro Ala Lys Val
 450 455 460
 Lys Pro Ala Glu Ile Asp Thr Tyr Asp Asp His Arg Met Ala Met Ala
 465 470 475 480
 Phe Ser Leu Ala Ala Cys Ala Asp Val Pro Val Thr Ile Lys Asp Pro
 485 490 495
 Gly Cys Thr Arg Lys Thr Phe Pro Asp Tyr Phe Gln Val Leu Glu Ser
 500 505 510
 Ile Thr Lys His
 515

<210> 27

<211> 516

<212> PRT

<213> Petunia hybrida

<400> 27

Met Ala Gln Ile Asn Asn Met Ala Gln Gly Ile Gln Thr Leu Asn Pro
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 Asn Ser Asn Phe His Lys Pro Gln Val Pro Lys Ser Ser Ser Phe Leu
 20 25 30
 Val Phe Gly Ser Lys Lys Leu Lys Asn Ser Ala Asn Ser Met Leu Val
 35 40 45
 Leu Lys Lys Asp Ser Ile Phe Met Gln Lys Phe Cys Ser Phe Arg Ile
 50 55 60
 Ser Ala Ser Val Ala Thr Ala Gln Lys Pro Ser Glu Ile Val Leu Gln
 65 70 75 80
 Pro Ile Lys Glu Ile Ser Gly Thr Val Lys Leu Pro Gly Ser Lys Ser
 85 90 95
 Leu Ser Asn Arg Ile Val Leu Leu Ala Ala Leu Ser Glu Gly Thr Thr
 100 105 110
 Val Val Asp Asn Leu Leu Ser Ser Asp Asp Ile His Tyr Met Leu Gly
 115 120 125
 Ala Leu Lys Thr Leu Gly Leu His Val Glu Glu Asp Ser Ala Asn Gln
 130 135 140
 Arg Ala Val Val Glu Gly Cys Gln Gly Leu Phe Pro Val Glu Thr Thr
 145 150 155

Arg Pro Leu Thr Ala Ala Val Thr Val Ala Gly Gly Asn Ser Arg Tyr
 180 185 190
 Val Leu Asp Gly Val Pro Arg Met Arg Glu Arg Pro Ile Ser Asp Leu
 195 200 205
 Val Asp Gly Leu Lys Gln Leu Gly Ala Glu Val Asp Cys Phe Leu Gly
 210 215 220
 Thr Lys Cys Pro Pro Val Arg Ile Val Ser Lys Gly Gly Leu Pro Gly
 225 230 235 240
 Gly Lys Val Lys Leu Ser Gly Ser Ile Ser Ser Gln Tyr Leu Thr Ala
 245 250 255
 Leu Leu Met Ala Ala Pro Leu Ala Leu Gly Asp Val Glu Ile Glu Ile
 260 265 270
 Ile Asp Lys Leu Ile Ser Val Pro Tyr Val Glu Met Thr Leu Lys Leu
 275 280 285
 Met Glu Arg Phe Gly Ile Ser Val Glu His Ser Ser Ser Trp Asp Arg
 290 295 300
 Phe Phe Val Arg Gly Gly Gln Lys Tyr Lys Ser Pro Gly Lys Ala Phe
 305 310 315 320
 Val Glu Gly Asp Ala Ser Ser Ala Ser Tyr Phe Leu Ala Gly Ala Ala
 325 330 335
 Val Thr Gly Gly Thr Ile Thr Val Glu Gly Cys Gly Thr Asn Ser Leu
 340 345 350
 Gln Gly Asp Val Lys Phe Ala Glu Val Leu Glu Lys Met Gly Ala Glu
 355 360 365
 Val Thr Trp Thr Glu Asn Ser Val Thr Val Lys Gly Pro Pro Arg Ser
 370 375 380
 Ser Ser Gly Arg Lys His Leu Arg Ala Ile Asp Val Asn Met Asn Lys
 385 390 395 400
 Met Pro Asp Val Ala Met Thr Leu Ala Val Val Ala Leu Tyr Ala Asp
 405 410 415
 Gly Pro Thr Ala Ile Arg Asp Val Ala Ser Trp Arg Val Lys Glu Thr
 420 425 430
 Glu Arg Met Ile Ala Ile Cys Thr Glu Leu Arg Lys Leu Gly Ala Thr
 435 440 445
 Val Glu Glu Gly Pro Asp Tyr Cys Ile Ile Thr Pro Pro Glu Lys Leu
 450 455 460
 Asn Val Thr Asp Ile Asp Thr Tyr Asp Asp His Arg Met Ala Met Ala
 465 470 475 480
 Phe Ser Leu Ala Ala Cys Ala Asp Val Pro Val Thr Ile Asn Asp Pro
 485 490 495
 Gly Cys Thr Arg Lys Thr Phe Pro Asn Tyr Phe Asp Val Leu Gln Gln
 500 505 510
 Tyr Ser Lys His
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<210> 28

<211> 444

<212> PPT

<213> Zea mays

<400> 28

Ala Gly Ala Glu Glu Ile Val Leu Gln Pro Ile Lys Glu Ile Ser Gly
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 Thr Val Lys Leu Pro Gly Ser Lys Ser Leu Ser Asn Arg Ile Leu Leu

Ser	Glu	Asp	Val	His	Tyr	Met	Leu	Gly	Ala	Leu	Arg	Thr	Leu	Gly	Leu
50						55				60					
Ser	Val	Glu	Ala	Asp	Lys	Ala	Ala	Lys	Arg	Ala	Val	Val	Val	Gly	Cys
65					70					75					80
Gly	Gly	Lys	Phe	Pro	Val	Glu	Asp	Ala	Lys	Glu	Glu	Val	Gln	Leu	Phe
				85					90					95	
Leu	Gly	Asn	Ala	Gly	Thr	Ala	Met	Arg	Pro	Leu	Thr	Ala	Ala	Val	Thr
			100					105						110	
Ala	Ala	Gly	Gly	Asn	Ala	Thr	Tyr	Val	Leu	Asp	Gly	Val	Pro	Arg	Met
			115					120						125	
Arg	Glu	Arg	Pro	Ile	Gly	Asp	Leu	Val	Val	Gly	Leu	Lys	Gln	Leu	Gly
						135								140	
Ala	Asp	Val	Asp	Cys	Phe	Leu	Gly	Thr	Asp	Cys	Pro	Pro	Val	Arg	Val
145					150					155					160
Asn	Gly	Ile	Gly	Gly	Leu	Pro	Gly	Gly	Lys	Val	Lys	Leu	Ser	Gly	Ser
				165					170					175	
Ile	Ser	Ser	Gln	Tyr	Leu	Ser	Ala	Leu	Leu	Met	Ala	Ala	Pro	Leu	Ala
			180					185						190	
Leu	Gly	Asp	Val	Glu	Ile	Glu	Ile	Ile	Asp	Lys	Leu	Ile	Ser	Ile	Pro
			195					200						205	
Tyr	Val	Glu	Met	Thr	Leu	Arg	Leu	Met	Glu	Arg	Phe	Gly	Val	Lys	Ala
			210					215						220	
Glu	His	Ser	Asp	Ser	Trp	Asp	Arg	Phe	Tyr	Ile	Lys	Gly	Gly	Gln	Lys
225					230					235					240
Tyr	Lys	Ser	Pro	Lys	Asn	Ala	Tyr	Val	Glu	Gly	Asp	Ala	Ser	Ser	Ala
				245						250				255	
Ser	Tyr	Phe	Leu	Ala	Gly	Ala	Ala	Ile	Thr	Gly	Gly	Thr	Val	Thr	Val
			260					265						270	
Glu	Gly	Cys	Gly	Thr	Thr	Ser	Leu	Gln	Gly	Asp	Val	Lys	Phe	Ala	Glu
			275					280						285	
Val	Leu	Glu	Met	Met	Gly	Ala	Lys	Val	Thr	Trp	Thr	Glu	Thr	Ser	Val
			290					295						300	
Thr	Val	Thr	Gly	Pro	Pro	Arg	Glu	Pro	Phe	Gly	Arg	Lys	His	Leu	Lys
305					310					315					320
Ala	Ile	Asp	Val	Asn	Met	Asn	Lys	Met	Pro	Asp	Val	Ala	Met	Thr	Leu
				325						330				335	
Ala	Val	Val	Ala	Leu	Phe	Ala	Asp	Gly	Pro	Thr	Ala	Ile	Arg	Asp	Val
			340					345						350	
Ala	Ser	Trp	Arg	Val	Lys	Glu	Thr	Glu	Arg	Met	Val	Ala	Ile	Arg	Thr
			355					360						365	
Glu	Leu	Thr	Lys	Leu	Gly	Ala	Ser	Val	Glu	Glu	Gly	Pro	Asp	Tyr	Cys
			370					375						380	
Ile	Ile	Thr	Pro	Pro	Glu	Lys	Leu	Asn	Val	Thr	Ala	Ile	Asp	Thr	Tyr
					390					395					400
Asp	Asp	His	Arg	Met	Ala	Met	Ala	Phe	Ser	Leu	Ala	Ala	Cys	Ala	Glu
				405						410				415	
Val	Pro	Val	Thr	Ile	Arg	Asp	Pro	Gly	Cys	Thr	Arg	Lys	Thr	Phe	Pro
				420				425						430	
Asp	Tyr	Phe	Asp	Val	Leu	Ser	Thr	Phe	Val	Lys	Asn				
			435					440							

4210- 29
 4211- 64
 4212- DNA

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 cgag 64

<210> 30
 <211> 64
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 <213> Artificial Sequence

<220>
 <223> Mutant primer

<400> 30
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 cgag 64

<210> 31
 <211> 64
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Mutant primer

<400> 31
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 cgag 64

<210> 32
 <211> 64
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<210> 33
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 <213> Artificial Sequence

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<400> 33
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 cgag 64

<210> 34
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<223> Mutant primer

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cgag 64

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cgag 64

<210> 36
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<212> DNA
<213> Artificial Sequence

<220>
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<400> 36
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cgag 64

<210> 37
<211> 64
<212> DNA
<213> Artificial Sequence

<220>
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<400> 37
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cgag 64

<210> 38
<211> 64
<212> DNA
<213> Artificial Sequence

<220>
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<400> 38
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cgag 64

<400> 39
 Leu Phe Leu Gly Asn
 1 5

<210> 40
 <211> 30
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 40
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<210> 41
 <211> 41
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 41
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<210> 42
 <211> 28
 <212> DNA
 <213> Artificial Sequence

<220>
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<400> 42
 gcgtctagaa aaacgagata aggtgcag 28

<210> 43
 <211> 38
 <212> DNA
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<400> 43
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